

# Customer Specification

## PART NO. 9817

### Construction

				Diameters (In)	
1) Component 1		1 X 2 COND			
a) Conductor		20 (7/28) AWG (1-TC &1-BC)		0.037	
b) Insulation		0.023" Wall, Nom. Polyethylene(PE)		0.083	
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	CLEAR	2	CLEAR		
c) Cabling		2 Cabled			
(1) Twists:		4.0 Twists/foot (min)			
d) Jacket		0.035" Wall, Nom.,Polyethylene (PE)		0.236+/- 0.004	
(1) Color(s)		CLEAR			
2) Shield		TC BRAID Shield,85% Coverage, Min.			
3) Jacket		0.033" Wall, Nom.,PVC		0.330+/- 0.010	
a) Color(s)		BLACK			
b) Print		ALPHA WIRE-* P/N 9817 RU AWM STYLE 2498 * = Factory Code			

### Applicable Specifications

1) UL	AWM/STYLE 2498	80°C / 300 V <sub>RMS</sub>
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### Environmental

1) EU Directive 2002/95/EC(RoHS):	
	All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for compliance Date of Manufacture.
2) California Proposition 65:	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

### Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	25 Lbs, Maximum
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Characteristic Impedance	100 Ω +/- 5
3) Inductance	0.155 μH/ft, Nominal
4) Mutual Capacitance	14.5 pf/ft @1 kHz, Nominal
5) Ground Capacitance	23 pf/ft @1 kHz, Nominal
6) Velocity of Propagation	66 %
7) Conductor DCR	BC Cond 9.5 Ω/1000ft @20°C, Nominal
	TC Cond 10.1 Ω/1000ft @20°C, Nominal
8) OA Shield DCR	3 Ω/1000ft @20°C, Nominal
9) Attenuation, Nom dB/100ft	1.3 @ 1 MHz
	1.2 @ 10 MHz
	2.5 @ 50 MHz
	4.1 @ 100 MHz
	6.4 @ 200 MHz
	10.2 @ 400 MHz

## Other

1) Packaging	
a) 1000 FT	
b) 500 FT	
c) 100 FT	

[www.alphawire.com](http://www.alphawire.com)

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:9817

9817 , RoHS-Compliant Commencing With11/1/2004Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.***

<b>Substance</b>	<b>Maximum Control Value</b>
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.1% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) Including Deca-BDE	0.1% by weight (1000 ppm)

*The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.*

Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering &QA

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